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Hinterland Connectivity- What is the Solution?

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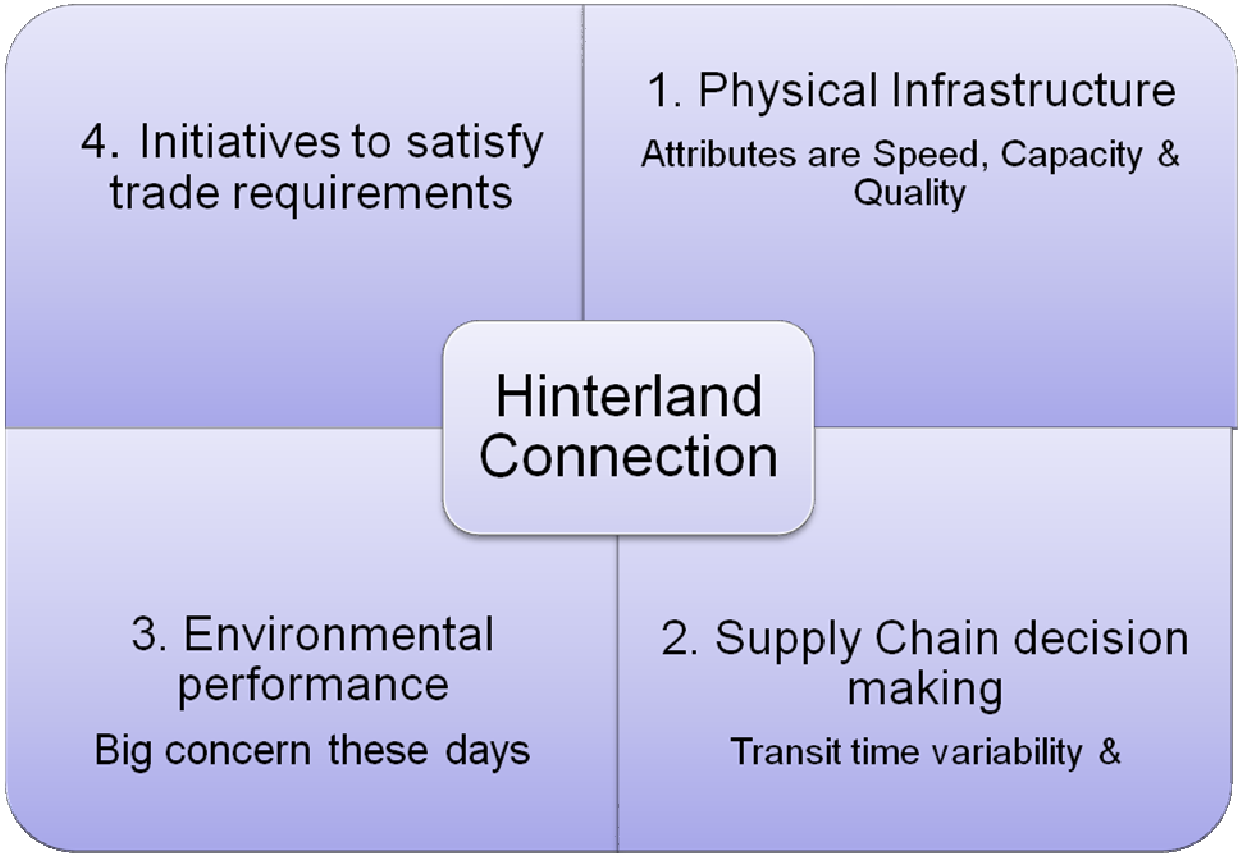
Appraising port Hinterland Connection- Challenges

Main Challenges:

- Congested & Poor Quality of Indian Roads
  - ✓ Recurrent congestion on almost quarter of roads
  - ✓ High fuel consumption & huge pollution
  - ✓ Taxes between state borders
- Poor access to rural areas
  - ✓ Although extensive, but 40% villages cut off during monsoons.
- Railways facing severe capacity constraints
  - ✓ Severe capacity constraints
  - ✓ Freight tariffs have been kept high to subsidize passenger traffic
- Urban centers severely congested
- Ports are congested
  - ✓ With increasing port traffic, Indian ports need to ramp up capacity & productivity

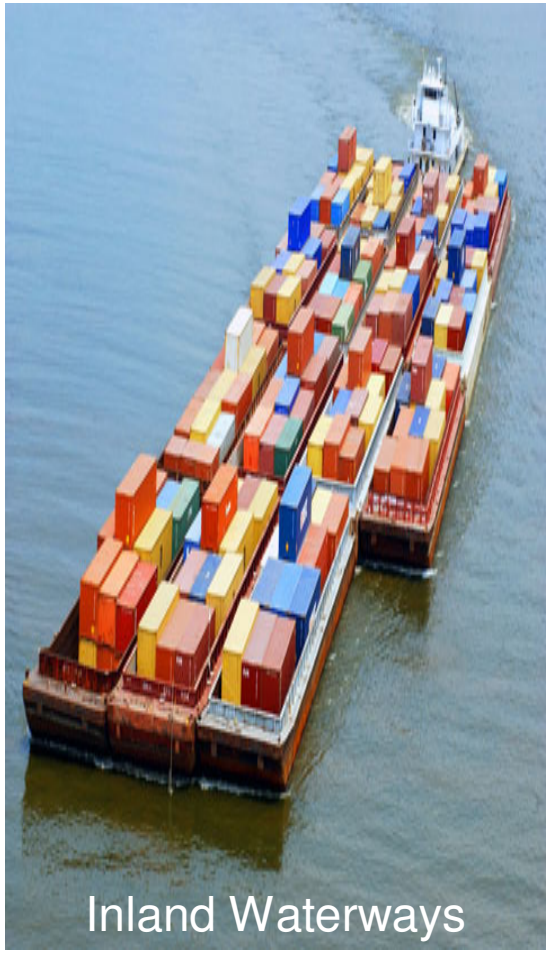
Appraising port Hinterland Connection



Hinterland connectivity acts as a vital link to Global supply chain.
But in India it is a weak link

Hinterland Connections of Seaport

"In most door-to-door transport chains, the costs of hinterland transport are higher than maritime transport costs and port costs combined"


Inland Waterways

Roadways

Railways

Inefficient & Efficient Hinterland Links – A Comparison

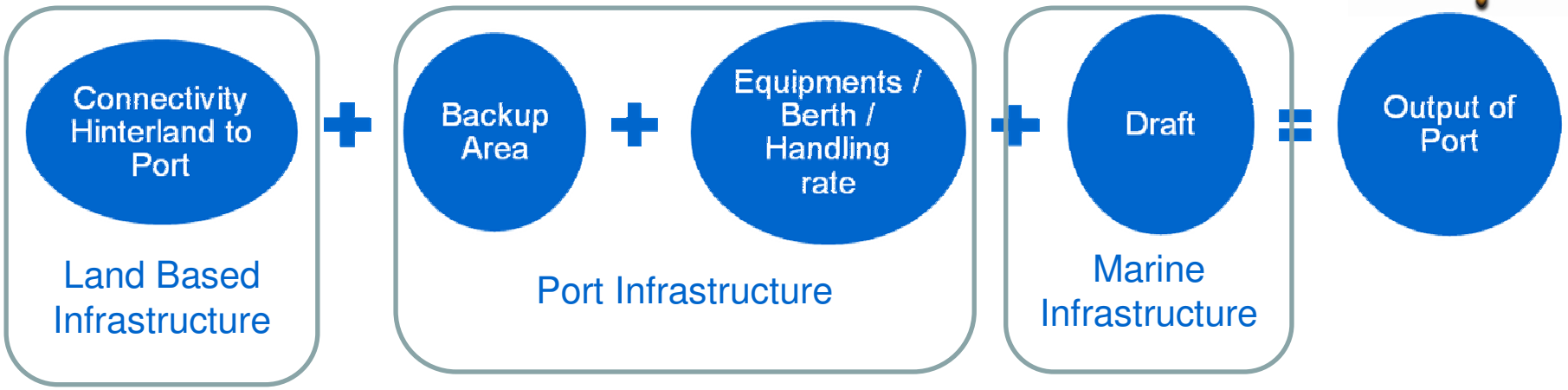
Inefficient Hinterland Links

- It is like a congested Road traffic
- Increases Supply Chain cost with consequent economic, environmental & social problems

Efficient Hinterland Links

- It is like a superhighway system.
- Efficient turnaround time
- Cost saving & environment friendly
- Boost to Hinterland economy

Nodes of Infrastructure for Port



- Success of port is a function of all the 3 major Nodes
- Minimum capacity of any node determines Capacity of Port

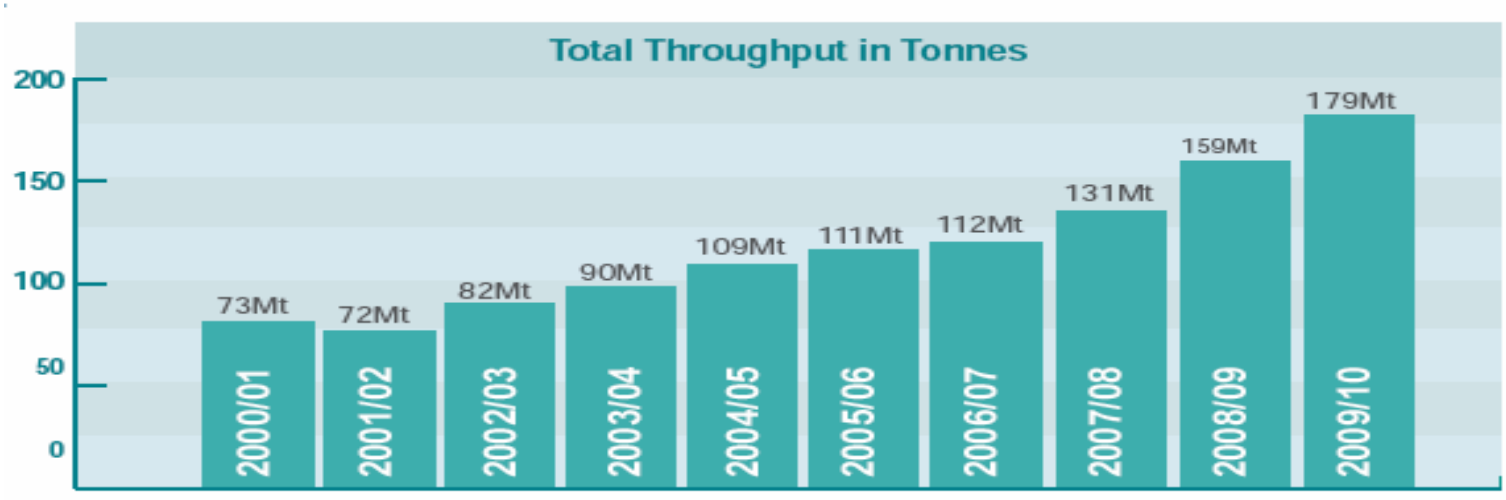
Ports in India have failed to get all nodes right at a single point of Time

Case Study – Bulk Handling Port (Hedland, Australia) to Bulk Handling Ports of East Coast (Haldia, Paradip, Gopalpur), India

Port Hedland, Australia

Port Hedland – A Snap shot

- Largest bulk mineral export port in the world.
- Certified capacity of 495 Mtpa & trade worth 40Bn$p.a.
- Excellent planning & development & wide network of Hinterland connection directly to mines.
- Huge rail network owned by mines, huge conveyor & excellent load/discharge rate

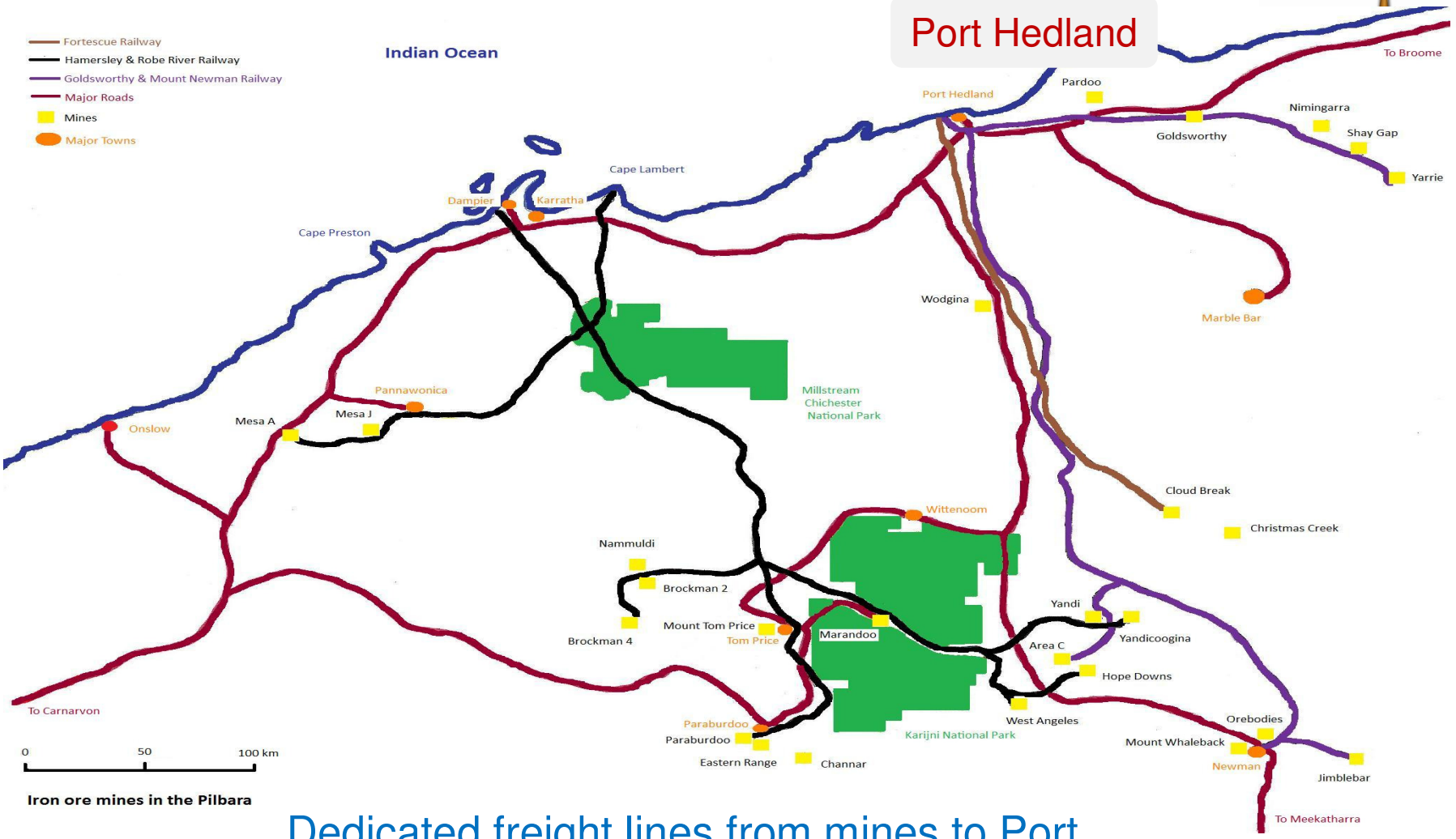


Mining Location - Australia

Best of Technology for extraction & transportation

Port Hedland - Land Side Connectivity

Port Hedland location map.



Dedicated freight lines from mines to Port

Port Hedland – Road & Rail

Port Hedland- Railways

3 KM long train!!!!- 426km-long railway was purpose-built to carry iron-ore from Newman. Carrying about 150,000 tonnes/day

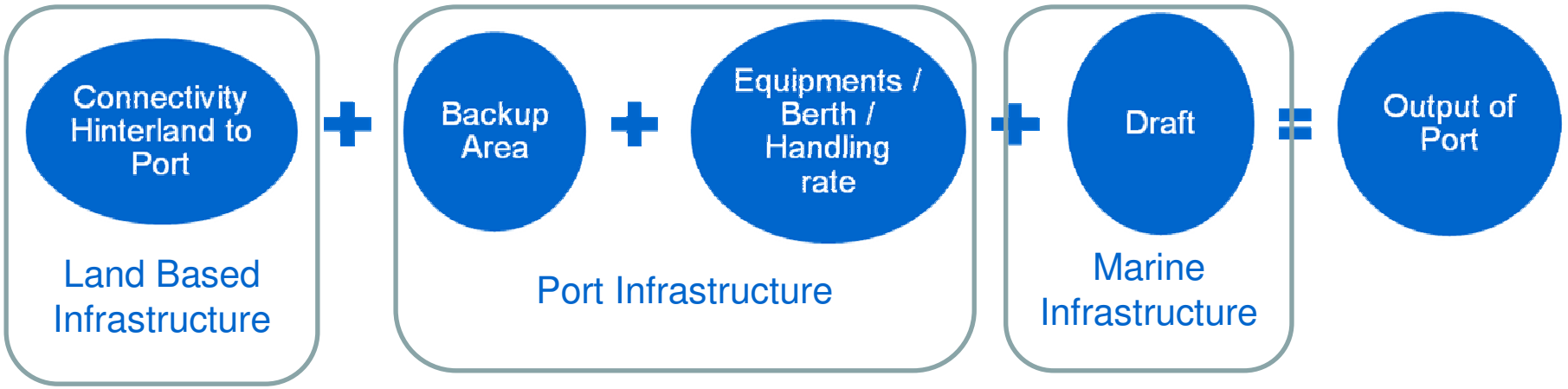
BHP Iron ore train arriving into Port Hedland. The train is hauled by six locomotives (3 pairs through the train) and they can have up to 300 wagons.

Port Hedland- Berth

Port Hedland- Infrastructure (Summary)

- Well connected
- Land Side infrastructure developed in tandem with Marine Side
- Dedicated route for bulk cargo
- Train Length 3 km
- Large handling Rate
- Can get Largest Ship

All Nodes has optimum planning at Port Hedland



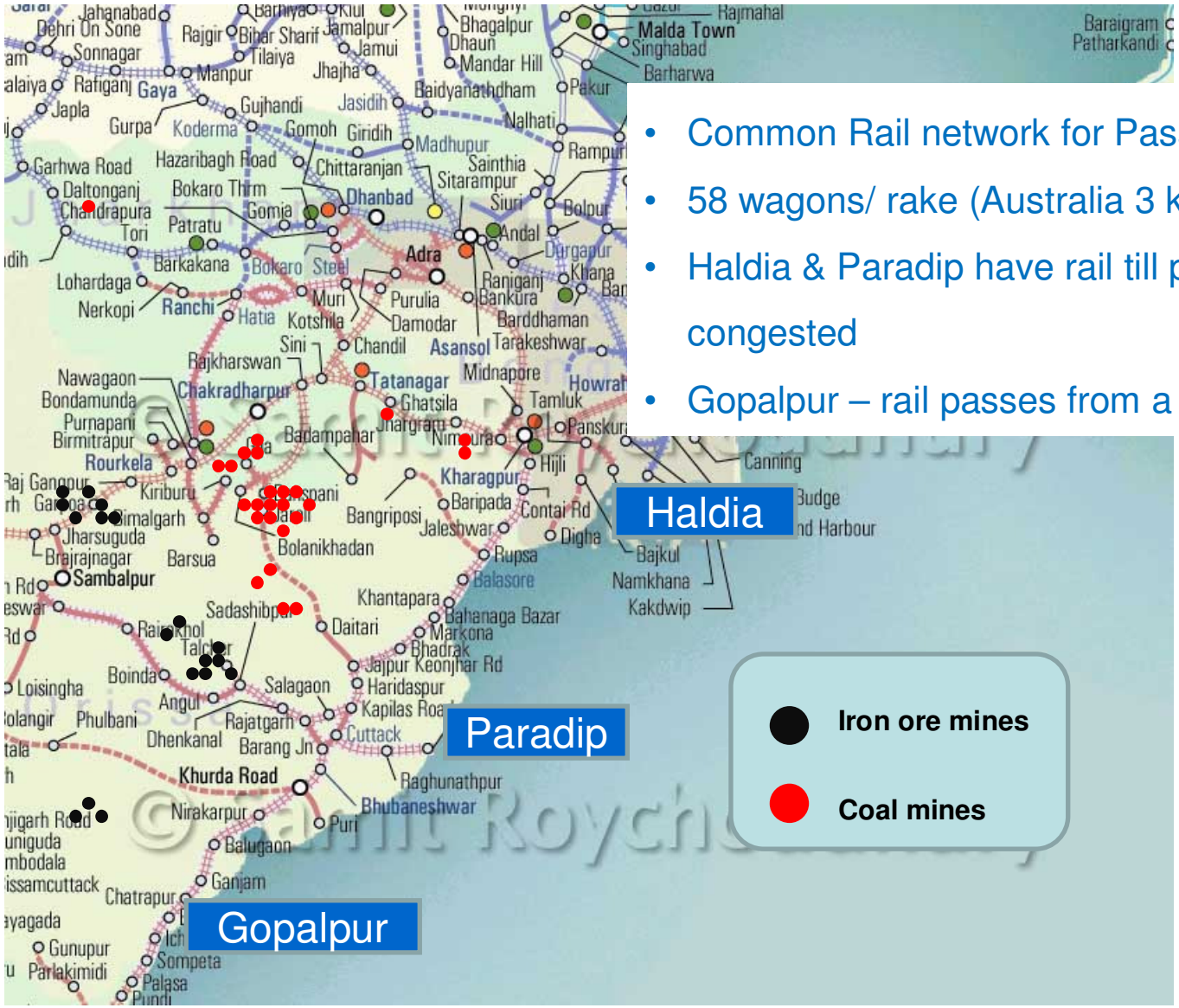
Indian Scenario

Mining Location

India uses wide range of technology for extraction & Transportation

No benchmark for productivity

Rail Network – East Coast



- Common Rail network for Passenger & freight
- 58 wagons/ rake (Australia 3 km rake)
- Haldia & Paradip have rail till port but are congested
- Gopalpur – rail passes from a distance

Marine Side Connectivity

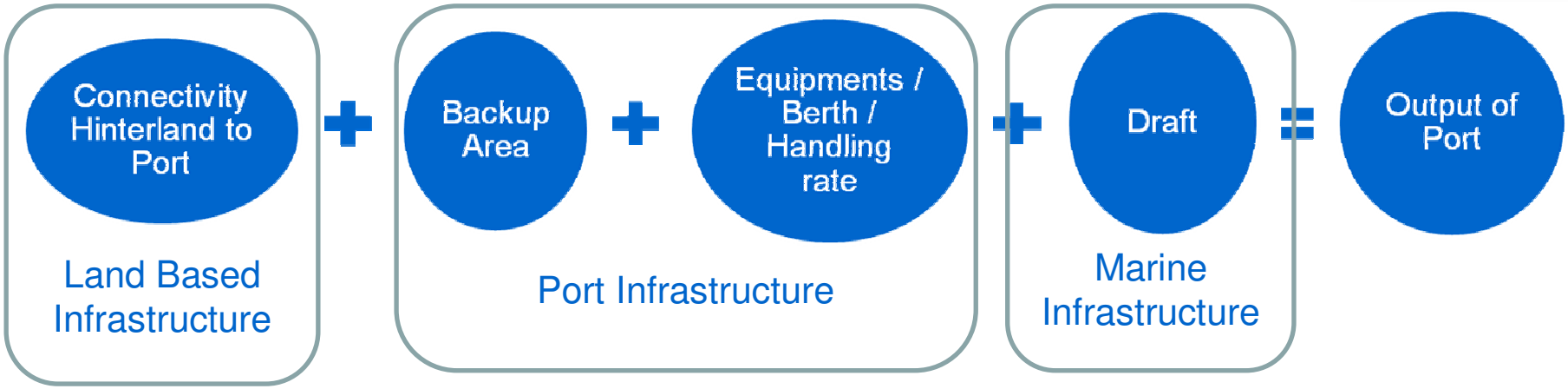
Haldia
•Congested Railway line reaches port
•Low draft cannot call large ships (Poor Marine Connectivity)

Paradip
•Congested Railway line reaches port
•Low draft cannot call large ships (Poor Marine Connectivity)

Gopalpur Port, India
•Excellent Marine Connectivity
•Private developer, can get latest equipments installed
•Poor land connectivity

Summary India

None of the Nodes has optimum planning



Not Bad	Good & Can be Improved	Bad	Haldia Port
Not Bad	Good & Can be Improved	Poor	Paradip Port
Very Bad	Good	Excellent	Gopalpur

"If you can imagine it, you can achieve it; if you can dream it, you can become it."- William Arthur Ward

What is the Solution

Implied Task: -

1. **Minimizing transport distance - avoiding unnecessary journeys.**
2. **Good hinterland connectivity- upgrading more transport arteries and hubs.**
3. **Efficient & sustainable transport modes - Making optimum use of transport infrastructure.**
4. **Cross state border transport initiatives shifting more traffic to railways and inland waterways;**
5. **Environmentally friendly and climate friendly transport**
6. **Good working conditions and good training in the freight transport industry.**

Why is India Not Able to Achieve It?

Too many stakeholders in a Democratic Country

Land Acquisition for Road, Railways – A Nightmare




Poor Planning with Short Term Focus

Too many departments at implementation stage

Ministry of Commerce and Industry

Port Trusts

Various State Governments

MINISTRY OF FINANCE GOVERNMENT OF INDIA

The Government of India, Ministry of Shipping

And the list goes on……

Confused & Frightened investor

Conclusion

Main Task :- 3i's

1. Initiatives
2. Innovation
3. Implementation

"Climb mountains to see lowlands."--------- Chinese Proverb

Thank you for your Attention